UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,322	01/15/2004	Georg Mogk	100717-607/ Bayer 10, 268	5385

27384   7590   11/14/2008
NORRIS, MCLAUGHLIN & MARCUS, PA
875 THIRD AVENUE
18TH FLOOR
NEW YORK, NY 10022

EXAMINER
BROWN JR, NATHAN II

ART UNIT	PAPER NUMBER
2129	

MAIL DATE	DELIVERY MODE
11/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Advisory Action **Before the Filing of an Appeal Brief**	10/758,322	MOGK ET AL.
	Examiner	**Art Unit**
	NATHAN H. BROWN JR	2129

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>06 November 2008</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☒ The period for reply expires <u>(3)</u> months from the mailing date of the final rejection.

   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b)☐ They raise the issue of new matter (see NOTE below);

   (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: _____.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☒ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
   See Continuation Sheet.

12. ☐ Note the attached Information *Disclosure* Statement(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/David R Vincent/
Supervisory Patent Examiner, Art Unit 2129

/Nathan H. Brown, Jr./
Examiner, Art Unit 2129

U.S. Patent and Trademark Office

PTOL-303 (Rev. 08-06)   **Advisory Action Before the Filing of an Appeal Brief**   Part of Paper No. 20081112

Continuation of 11. does NOT place the application in condition for allowance because:

(A) Applicants' argument that paragraph [0021] in the specification supplies support for a computer digital storage medium or any other computer hardware for data storage is not persuasive.
There is no evidence that the conclusion in paragraph [0021], that conventional algorithms "require extremely long computing times and fail on commercially available computers due to the memory requirement", is arrived at by actually running said 'conventional algorithms' on commercially available computers as opposed to simply performing a complexity analysis to reach the conclusion.

Paragraph [0021] simply states that the Quickhll and simplex algorithms "are known per se from the literature" to be "inefficient in highly dimensional spaces...because they require extremely long computing times and fail on commercially available computers due to the memory requirement." This discloses nothing about the performace of the algorithms on particular storage architectures, and thus discloses nothing specific, in this respect, about digital storage media or any other computer hardware for data storage. Claims 1, 10, and 12 remain rejected under 35 U.S.C. §112, 1st.

(B) (1) Examiner disagrees with Applicants' conclusion that a neural network is a machine. Examiner asserts that neural networks are mathematical models which abstract the mechanics of information processing in the brain. Further, Applicants provide no recitation of circuitry which would support the argument that the invention is directed to a machine.

(2) Examiner disagrees with Applicants' application of the 'second branch' of the 'machine-or-transformation test' in In re Biliski. Examiner agrees that Applicants specify a particular type of data. However, Examiner finds no support that the invention is directed toward the transformation of that data into some tangible result.

Examiner finds that the invention is directed toward using a convex hull to check whether said data should be used to make a "prediction". Examiner finds no description of the "prediction" and how said data is transformed in making the prediction.

Further, Examiner asserts that--generally--data isn't transformed to make a prediction with neural network technicques. Rather, the distance from some input data point, in the form of a vector, to a number of other data points (considered to be t time steps in the future from the input data), in the form of vectors, is approximated and the future data point with the smallest distance from the input data point is designated as the 'prediction'. Clearly, no transformation of the input data is (or need be) involved in 'predicting' using a neural network model. Examiner considers the requirements of neither branch of the machine-or-transfomation test to be met and maintains the rejection of claims 1, 3, 10, and 12 under 35 U.S.C. §101. (3) Examiner maintains the rejection of claims 1, 3, 10, and 12 under 35 U.S.C. §112, 1st as failing to satisfy the requirements under 35 U.S.C. §101.